

Conference Report

Population and Molecular Genetic Update: The Second Middle East Genetics Association of America (MEGA) Conference

Ahmad S. Teebi^{1*} and Rabah M. Shawky²

¹*Division of Clinical and Metabolic Genetics, The Hospital for Sick Children and University of Toronto, Toronto, Ontario, Canada*

²*Genetics Unit, Paediatrics Department, Ain Shams University, Cairo, Egypt*

The conference, which was organized by Ain Shams University in Cairo, was held recently in Cairo from November 30 to December 2, 1999.

Topics discussed included clinical genetics and dysmorphology, molecular genetics and molecular cytogenetics, metabolic genetics, cancer genetics, prenatal diagnosis and perinatal medicine, neurogenetics and genetics of other system-related disorders.

In his opening lecture, A.S. Teebi (The Hospital for Sick Children, Toronto, Canada) reviewed the pattern of genetic disorders among the Arabs. He pointed to their genetic diversity as seen from the mutation pattern of several genes such as *CF*, *PAH*, and *FMF* as well as from the remarkable variation in the frequencies of other disorders between Arab countries and even within the population sectors of the same country.

C. Kozma (Georgetown University, Washington, D.C.) discussed the ethical, legal, and social issues related to recent genetic advances in conjunction with the Human Genome Project with special reference to the Arab world.

R.M. Shawky (Ain Shams University, Cairo, Egypt) reviewed the prevalent genetic disorders and malformations among the Egyptians and pointed out that they account for about 25% of pediatric admissions to their university hospitals.

M. Mahran (Ain Shams University, Cairo, Egypt) discussed the dilemma of infections during pregnancy with emphasis on congenital toxoplasmosis.

A. Al-Aqeel (Riyadh Armed Forces Hospital, Riyadh, Saudi Arabia), through her presentation on the prenatal diagnosis and treatment of prevalent metabolic disorders in Saudi Arabia, discussed the special importance of early prenatal diagnosis (<16 weeks) in a population with specific religious views such as the Muslim Saudi Arabian population.

M. Rashed (King Faisal Specialist Hospital and Research Center, Riyadh, Saudi Arabia) discussed their

five years of experience in neonatal screening and selective screening and testing for fatty acid oxidation disorders using Tandem Mass Spectrometry in Saudi Arabia and from other Middle-Eastern countries.

T. Siddique (Northwestern University, Chicago, Ill.) provided an overview of the molecular approach to neurogenetic disorders with special reference to their experience in heterogeneous familial amyotrophic lateral sclerosis and some autosomal recessive neurodegenerative disorders from the Middle East.

E. Abdel-Salam (Cairo University, Cairo, Egypt) discussed the implications of age-corrected serum CK levels compared with gene mutations in counselling of Duchenne muscular dystrophy (DMD) and Becker muscular dystrophy (BMD) families.

A. El-Harouni (National Research Center, Cairo, Egypt) provided the results of screening for dystrophin gene deletions in 165 Egyptian families diagnosed to have either DMD or BMD.

M. Qumsiyeh (Yale University, New Haven, CT) discussed how to “stay ahead of the game” in genetic testing in view of the Human Genome revolution and the information super-highway. He provided examples of a growing list of genetic databases.

M.J. Dasouki (Children’s Mercy Hospital, Kansas City, Mo.) showed that fatty myopathy in Bannayan-Zonnana syndrome is not due to long chain 3-hydroxyl acyl CoA deficiency.

H.H. Afifi (National Research Center, Cairo, Egypt) talked about the clinical and biochemical variability of RSH/Smith-Lemli-Opitz syndrome.

M. Rafi (Jefferson Medical College, Philadelphia, Pa.) discussed gene therapy for neurodegenerative disorders focusing on the experiments with a Krabbe disease mouse model.

M. El-Hazmi (King Saud University and WHO Collaborating Centre, Riyadh, Saudi Arabia) discussed the intradisciplinary approach to genetic counselling in Saudi Arabia taking into consideration prevailing beliefs and tradition.

S. Temtamy (National Research Center, Cairo, Egypt) gave an overview of genetic counselling in children with limb malformations in Egypt.

T.I. Farag (Dalhousie University, Halifax, NS,

*Correspondence to: Dr. Ahmad S. Teebi, Division of Clinical and Metabolic Genetics, The Hospital for Sick Children, 555 University Ave., Toronto, Ontario, M5G-1X8, Canada. E-mail: ateebi@sickkids.on.ca

Received 8 February 2000; Accepted 11 February 2000

Canada) gave a presentation on the community genetics concept and the Middle-Eastern model.

M. El-Zawahri (Kuwait University, Kuwait) reported on molecular genotyping of the ABO blood group system using PCR-RFLP analysis in a sample of the Kuwaiti population.

M. Ahmad (Duke University Medical Center, Durham, NC) presented the clinical data on patients with supernumerary marker chromosomes identified by molecular cytogenetics.

M.A. Mohamed (Ain Shams University, Cairo, Egypt) presented data from a genetic study of multidrug-resistant *mycobacteria tuberculosis*.

M. Al-Hamed (King Faisal Specialist Hospital & Research Center, Riyadh, Saudi Arabia) reported on the gene localization of three autosomal recessive disorders exclusively reported in Arabs so far, including the Sanjad-Sakati syndrome.

Among other interesting papers: Genetic conditions in ancient Egypt (C. Kozma, United States); genetic basis of coeliac disease (M. Awadalla, Egypt); genetics

of cardiac defects (A. Kotby, Egypt), craniofacial evaluation in conotruncal anomalies (M. Ramzy, Egypt); genetic study of female gonadal dysgenesis (R. Hussein, Egypt); genotype/phenotype correlation of Gaucher disease in Egyptian children (A.S. Khalifa, Egypt); clinical dysmorphology: the science and art (A.S. Teebi, Canada); newborn screening for PKU and galactosemia using cord blood in Egypt (E. Fateen, Egypt); karyotype/phenotype correlation in patients with chromosomal rearrangements (Rushdy, Egypt); role of genetics in breast cancer (A. Khalifa, Egypt); new developments in cytogenetic diagnosis in prenatal medicine (M. Qumsiyeh, United States); gene mutations in thalassemias in relation to management (M. Hafez, Egypt).

The closing session was an open format on genetics, religion, and society. The main speakers were Professor Sheikh Nasr F. Wassef (the Mufti of Egypt) and Professor M.R. Othman (Al-Azhar University, Cairo, Egypt).

The abstracts were published by Ain Shams University, Cairo, Egypt.